

Notice of Allowability

Application No.

10/051,544

Examiner

Johannes P Mondt

Applicant(s)


HUMMLER, KLAUS

Art Unit

2826

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2826



1. ☒ This communication is responsive to 10/16/2003.
2. ☒ The allowed claim(s) is/are 14-16, 18 and 19.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
(a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS must be submitted.
(a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☒ hereto or 2) ☐ to Paper No. _____.
(b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
(c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1 ☐ Notice of References Cited (PTO-892)
3 ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
5 ☐ Information Disclosure Statements (PTO-1449), Paper No. _____.
7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2 ☐ Notice of Informal Patent Application (PTO-152)
4 ☐ Interview Summary (PTO-413), Paper No. _____.
6 ☒ Examiner's Amendment/Comment
8 ☒ Examiner's Statement of Reasons for Allowance
9 ☐ Other

DETAILED ACTION

Response to Amendment

Proposed Amendment After Final Rejection submitted under 37 C.F.R. 1.116 filed 12/19/2003 places the application in condition for allowance, considering the cancellation of non-elected claims 1-13.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Nathaniel Wallace (48,909) on December 23, 2003.

The application has been amended as follows:

BEGIN EXAMINER'S AMENDMENT

Claim 15: The wording "The system of claim 14" (line 1) has been replaced by: "The memory device of claim 14".

Claim 16: The wording "The system of claim 14" (line 1) has been replaced by: "The memory device of claim 14".

Claim 18: The wording "The system of claim 14" (line 1) has been replaced by: "The memory device of claim 14".

Claim 19: The wording "The system of claim 18" (line 1) has been replaced by: "The memory device of claim 18".

END OF EXAMINER'S AMENDMENT

Allowable Subject Matter

1. ***Claims 14-16 and 18-19*** are allowed. The following is an examiner's statement of reasons for allowance:

Pogge et al (6,599,778 B2), previously made of record and cited, teach (cf. Figures 3G and 4E):

a dimple 38 (cf. col. 5, lines 11-20) ground into a back side 1b (cf. Figure 4C and col. 5, line 1 and col. 5, lines 11-15) of a semiconductor substrate 1 (cf. col. 4, line 67);

a trench 39 (cf. col. 5, lines 11-20) extending from the bottom portion of the dimple exposing a portion 22 (cf. col. 5, lines 11-20; cf. Figures 3B, 3G and 4E) of a vertical trench fill 24/26 (cf. Figures 2E and 2F and col. 4, lines 5-41); and

a conductive material 22 (cf. col. 5, lines 11-20) connecting the vertical trench fill and a buried plate 23 (cf. col. 4, lines 5-18). The further limitation that the said trench be "milled" is immaterial to the present device claim 14.

However, the conductive material 22 as taught by Pogge et al does not cover a portion of the backside 1b of the semiconductor substrate 1 unlike in Figure 3b of Applicant's disclosure.

An update has not revealed prior art over which the independent claim must be rejected.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johannes P Mondt whose telephone number is: 703-306-0531 BEFORE February 4, 2004; and 571-272-1919 AFTER February 4, 2004. The examiner can normally be reached on 8:00 - 18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 703-308-6601 BEFORE February 4, 2004, and on 571-272-1915 AFTER February 4, 2004. The fax phone number for the organization where this application or proceeding is assigned is 703-308-5399.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.